

MATERIALS AUTHORIZED FOR TREATMENT OF WINE AND JUICE—Continued

Materials and use	Reference or limitation
Tannin: To adjust tannin content in apple juice or in apple wine	The residual amount of tannin shall not exceed 3.0 g/L, calculated as gallic acid equivalents (GAE). GRAS per FDA advisory opinions dated 4/6/59 and 3/29/60. Total tannin shall not be increased by more than 150 milligrams/liter by the addition of tannic acid (polygalloylglucose).
To clarify or to adjust tannin content of juice or wine (other than apple).	The residual amount of tannin, calculated in gallic acid equivalents, shall not exceed 0.8 g/L in white wine and 3.0 g/L in red wine. Only tannin which does not impart color may be used in the cellar treatment of juice or wine. GRAS per FDA advisory opinions dated 4/6/59 and 3/29/60. Total tannin shall not be increased by more than 150 milligrams/liter by the addition of tannic acid (poly-galloylglucose).
Tartaric acid: To correct natural acid deficiencies in grape juice/wine and to reduce the pH of grape juice/wine where ameliorating material is used in the production of grape wine.	Use as prescribed in 27 CFR 24.182 and 24.192. 21 CFR 184.1099 (GRAS).
Thiamine hydrochloride: Yeast nutrient to facilitate fermentation of wine.	The amount used shall not exceed 0.005 lb/1000 gals. (0.6 mg/L) of wine or juice. 21 CFR 184.1875 (GRAS).
Yeast, autolyzed: Yeast nutrient to facilitate fermentation in the production of grape or fruit wine.	21 CFR 172.896 and 184.1983. GRAS per FDA advisory opinion of 10/06/59.
Yeast, cell wall/membranes of autolyzed yeast: To facilitate fermentation of juice/wine.	The amount used shall not exceed 3 lbs/1000 gals. (0.36 g/L) of wine or juice. (GRAS).

* GRAS—An acronym for “generally recognized as safe.” The term means that the treating material has an FDA listing in Title 21, Code of Federal Regulations, Part 182 or Part 184, or is considered to be generally recognized as safe by advisory opinion issued by the U.S. Food and Drug Administration.

** AOAC—Association of Official Analytical Chemists.

***To stabilize—To prevent or to retard unwanted alteration of chemical and/or physical properties.

(Sec. 201, Pub. L. 85–859, 72 Stat. 1383, as amended (26 U.S.C. 5381, 5382, 5385, 5386, and 5387))

[T.D. ATF–299, 55 FR 24989, June 19, 1990, as amended by T.D. ATF–312, 56 FR 31079, July 9, 1991; T.D. ATF–350, 58 FR 52231, Oct. 7, 1993; T.D. ATF–350, 60 FR 38959, July 31, 1995; T.D. ATF–371, 61 FR 21079, May 9, 1996]

§ 24.247 Materials authorized for the treatment of distilling material.

The materials listed in this section as well as the materials listed in § 24.246 are approved as being acceptable in good commercial practice for use by proprietors in the treatment of distilling material within the limita-

tions specified in this section: *Provided*, That when the specified use or limitation of any material on this list is determined to be unacceptable by the U.S. Food and Drug Administration, the Director may cancel or amend the approval for use of the material in the treatment of distilling material.

Materials	Use	Reference or limitation
Ammonium phosphate (<i>mono</i> - and <i>di</i> basic).	Yeast nutrient in distilling material	The amount used shall not exceed 10 lbs/1000 gals. (1.2 g/L). 21 CFR 184.1141 (GRAS). ¹ See footnote below.
Benzoic acid, potassium and sodium salts of benzoic acid.	To prevent fermentation of the sugar in wine being accumulated as distilling material.	The amount used shall not exceed 0.1% (w/v) as benzoic acid. GRAS per FDA advisory opinions dated 9/22/82 and 9/8/83. 21 CFR 184.1021 and 184.1733 (GRAS).
Enzyme activity	The enzyme preparation used shall be prepared from nontoxic and nonpathogenic microorganisms in accordance with good manufacturing practice and be approved for use in food by either FDA regulation or by FDA advisory opinion.
Carbohydrase (<i>alpha</i> -Amylase).	To convert starches to fermentable carbohydrates.	The amylase enzyme activity shall be derived from <i>Aspergillus niger</i> , <i>Aspergillus oryzae</i> , <i>Bacillus subtilis</i> , or barley malt per FDA advisory opinion of 8/18/83 or from <i>Rhizopus oryzae</i> per 21 CFR 173.130 or from <i>Bacillus licheniformis</i> per 21 CFR 184.1027.
Carbohydrase (<i>beta</i> -Amylase).	To convert starches to fermentable carbohydrates.	The amylase enzyme activity shall be derived from barley malt per FDA advisory opinion dated 8/18/83.

Materials	Use	Reference or limitation
Carbohydrase (Glucoamylase, Amylogluco-sidase).	To convert starches to fermentable carbohydrates.	The amylase enzyme activity shall be derived from <i>Aspergillus niger</i> or <i>Aspergillus oryzae</i> per FDA advisory opinion dated 8/18/83 or from <i>Rhizopus oryzae</i> per 21 CFR 173.130 or from <i>Rhizopus niveus</i> per 21 CFR 173.110.
Copper sulfate	To eliminate hydrogen sulfide and mercaptans.	The finished brandy or wine spirits produced from distilling material to which copper sulfate has been added shall not contain more than 2 parts per million (2 mg/L) residual copper. GRAS per FDA advisory opinion of 7/23/69.
Hydrogen peroxide	To reduce the bisulfite aldehyde complex in distilling material.	The amount used shall not exceed 200 parts per million. 21 CFR 184.1366 (GRAS).
Potassium permanganate ...	Oxidizing agent	The finished brandy or wine spirits produced from distilling material to which potassium permanganate has been added must be free of chemical residue resulting from such treatment. (GRAS)
Sodium hydroxide	Acid neutralizing agent	The finished brandy or wine spirits produced from distilling material to which sodium hydroxide has been added must be free of chemical residue resulting from such treatment. 21 CFR 184.1763 (GRAS).
Sulfuric acid	To effect favorable yeast development in distilling material; to prevent fermentation of the sugar in wine being accumulated as distilling material; to lower pH to 2.5 in order to prevent putrefaction and/or ethyl acetate development.	27 CFR 24.216 (GRAS), 21 CFR 184.1095 (GRAS).

¹ GRAS—An acronym for "generally recognized as safe." The term means that the treating material has an FDA listing in title 21, Code of Federal Regulations, part 182 or part 184, or is considered to be generally recognized as safe by the U.S. Food and Drug Administration.

(Sec. 201, Pub. L. 85-859, 72 Stat. 1383, as amended (26 U.C.S. 5381, 5382, 5385, 5386, and 5387)).

§ 24.248 Processes authorized for the treatment of wine, juice, and distilling material.

Any process which changes the character of the wine to the extent inconsistent with good commercial practice is not permitted on bonded wine premises. The processes listed in this section are approved as being consistent with good commercial practice for use by proprietors in the production, cellar treatment, or finishing of wine, juice,

and distilling material, within the general limitations of this section: *Provided*, That when the specified use or limitation of any process on this list is determined to be unacceptable for use in foods and beverages by the U.S. Food and Drug Administration, the Director may cancel or amend the approval for use of the process in the production, cellar treatment, or finishing of wine, juice, and distilling material.

PROCESSES AUTHORIZED FOR THE TREATMENT OF WINE, JUICE, AND DISTILLING MATERIAL

Processes	Use	Reference or limitation
Elimination of sulfur dioxide by physical process.	To reduce the sulfur dioxide content of juice.	Use of a physical process to remove sulfur dioxide from juice must not alter the basic character of the juice so treated
Ion exchange	Various applications in the treatment of juice or wine:	Anion, cation, and non-ionic resins, except those anionic resins in the mineral acid state, may be used in batch or continuous column processes as total or partial treatment of wine, provided that with regard to juice or finished wine; 1. Such treatment does not alter the fruit character of the juice or wine. 2. The treatment does not reduce the color of the juice or wine to less than that normally contained in such juice or wine. 3. Treatment does not increase inorganic anions in the juice or wine by more than 10 mg/L. 4. The treatment does not reduce the metallic cation concentration in the juice or wine to less than 300 mg/L.